

### **What is claimed is:**

**[Claim 1]**            1. A method for accessing memory, comprising the steps of:

dividing a memory into  $N$  memory blocks;  
receiving a plurality of line data, and sequentially writing the line data into  $N$  memory blocks, wherein  $N$  is an integer; and  
after writing more than  $N/2+1$  memory blocks, starting to read the line data stored in the memory blocks.

**[Claim 2]**            2. The method for accessing memory of claim 1, wherein the memory is a single port memory.

**[Claim 3]**            3. The method for accessing memory of claim 2, wherein the reading step is started after the writing of the  $N/2+2$  memory blocks is completed.

**[Claim 4]**            4. The method for accessing memory of claim 2, wherein the reading step is started from the memory blocks which are written in a sequence of the 1<sup>st</sup> memory block and the  $(N/2+1)^{\text{th}}$  memory block.

**[Claim 5]**            5. The method for accessing memory of claim 1, wherein the storage capacity of the memory is the same as the size of the line data.

**[Claim 6]**            6. The method for accessing memory of claim 5, wherein the memory is a single port memory.

**[Claim 7]**            7. The method for accessing memory of claim 6, wherein the reading step is started after the writing of the  $N/2+2$  memory blocks is completed.

**[Claim 8]**            8. The method for accessing memory of claim 6, wherein  $N$  is a positive even number greater than 7.

**[Claim 9]**            9. The method for accessing memory of claim 6, wherein the reading step is started from the memory blocks which are

written in a sequence of the 1<sup>st</sup> memory block and the  $(N/2+1)^{\text{th}}$  memory block.

[Claim 10] 10. The method for accessing memory of claim 1, wherein the writing further comprises the steps of:

dividing the line data into a plurality of even data and a plurality of odd data according to a sequence of the line data; and

writing the even data and odd data into the N memory blocks, respectively, wherein the memory block for writing the even data is different from the memory block for writing the odd data.

[Claim 11] 11. The method for accessing memory of claim 10, wherein the storage capacity of the memory is the same as the size of the line data.

[Claim 12] 12. The method for accessing memory of claim 10, wherein the memory is a single port memory.

[Claim 13] 13. The method for accessing memory of claim 10, wherein the reading step is started after the writing of the  $N/2+2$  memory blocks is completed.

[Claim 14] 14. The method for accessing memory of claim 10, wherein N is a positive even number greater than 7.

[Claim 15] 15. The method for accessing memory of claim 10, wherein the reading step is started from the memory blocks which are written in a sequence of the 1<sup>st</sup> memory block and the  $(N/2+1)^{\text{th}}$  memory block.

[Claim 16] 16. The method for accessing memory of claim 11, wherein the reading step is started after the writing of the  $N/2+2$  memory blocks is completed.

[Claim 17] 17. The method for accessing memory of claim 11, wherein the memory is a single port memory.

[Claim 18] 18. An apparatus performing the method of claim 1.

**[Claim 19]**                    19.The apparatus of claim 18, wherein the memory is a single port memory.